

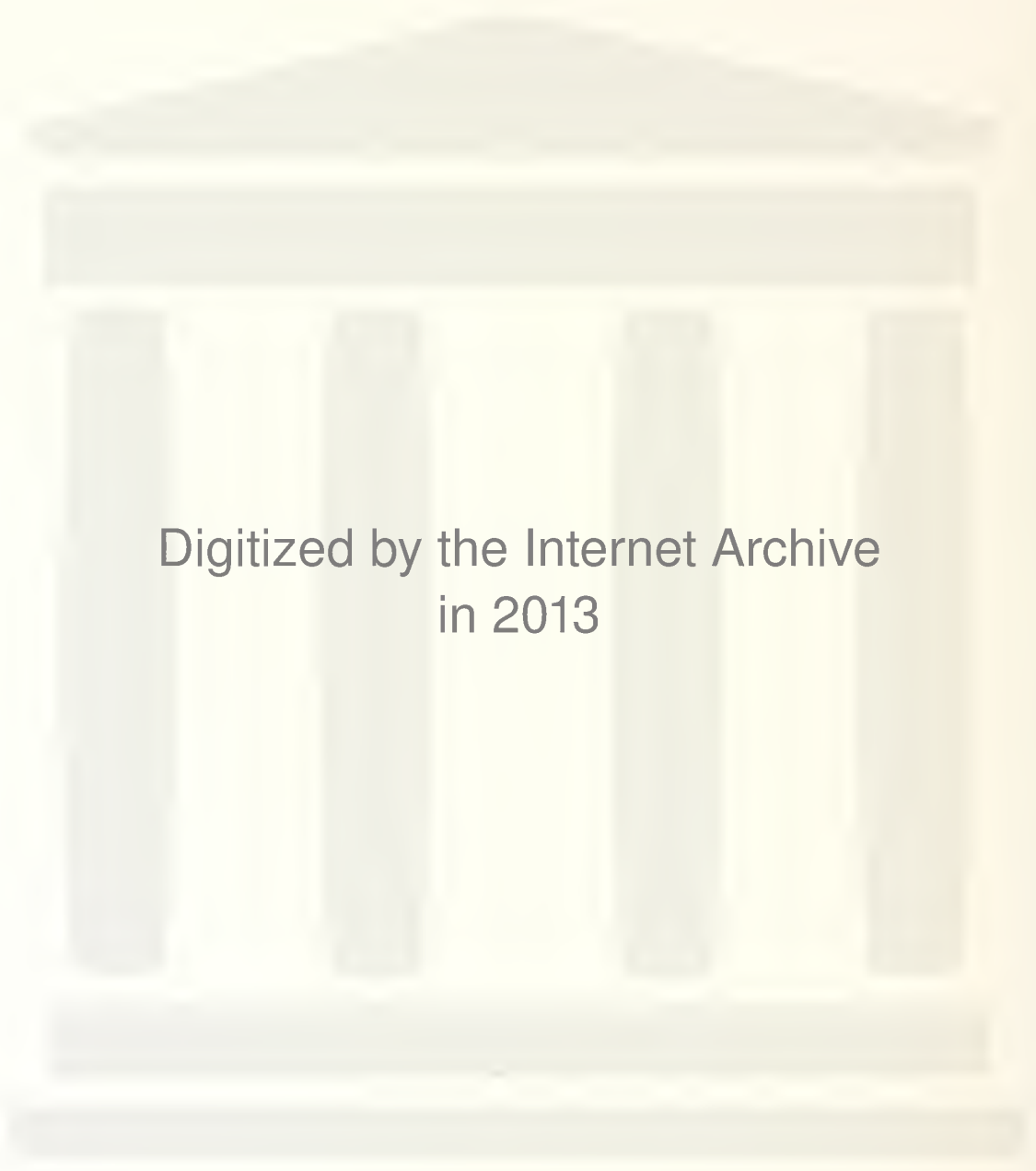


CARLETON UNIVERSITY

Ottawa, Ontario

112th Convocation

Friday, June 11, 1999



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1999 Spring Convocation

Convocation at Carleton University — 2



Friday, June 11, 10:00 a.m.

Honorary Degree Recipient Laurent Beaudoin — 4

Order of Proceedings — 5

Doctor of Philosophy from the Faculty of Engineering and Design;
Master of Engineering; Master of Architecture; Bachelor of Engineering;
Bachelor of Architecture; and Bachelor of Industrial Design



Friday, June 11, 2:00 p.m.

Honorary Degree Recipient Richard E. Taylor — 16

Founders Award Recipient G. Ross Love — 17

High School Teaching Award Recipient Henry Jakubinek — 18

Order of Proceedings — 19

Doctor of Philosophy from the Faculty of Science and the School of
Computer Science; Master of Science; Master of Computer Science;
Bachelor of Science; Bachelor of Computer Science



Medallists in the Graduating Class — 31

Convocation at Carleton University



The Convocation ceremony (the calling together of the academic assembly) has its roots in university traditions of medieval Europe.

The Mace

The mace is a staff symbolizing authority. In the days of knighthood, it was a weapon, but after the 16th century it became solely a symbol of authority carried by a distinguished member of an assembly. It is used on ceremonial occasions to signify the right of an individual or institution to perform a certain function—in the case of universities, to grant degrees.

At Convocation, the mace is carried ahead of the Chancellor as he enters and leaves each ceremony. During the ceremony the mace is displayed on a special stand as an embodiment of the authority of the University.

Carleton's mace was presented to the University in 1976 as a gift from the Chair of the Board of Governors at that time, Mr. Hyman Soloway. It is a silver-plated staff approximately three feet long. At the upper end there is a bowl marked with the University's coat of arms and the University motto in both Latin and English—"Opera Nobis Aeterna" and "Ours the Task Eternal." From the upper portion of the bowl rises a phoenix. Traditional oak leaves surround the lower end of the staff.

Coat of Arms

The coat of arms was presented to the University by His Excellency The Right Honourable Ramon John Hnatyshyn, Governor-General of Canada, on November 15, 1992 as part of Carleton's 50th anniversary celebrations. It is described in heraldic terms as follows: "Sable a maple leaf Gules irradiated and charged with an open book Argent; And for a Crest: on a wreath Argent Sable and Gules a Phoenix Gules quilled and beaked Or issuing from flames proper; And for a Motto: Ours the Task Eternal; And for Supporters: on a grassy mount on either side a raven Sable beaked and membered or armed Gules."

The open book on the maple leaf signifies that Carleton University is in the nation's capital and that learning is open to all who wish to partake of it. The phoenix, the legendary eternal bird, symbolizes the renewing of learning from older foundations, in recognition of Henry Marshall Tory's role in the founding of the University when he was 82 years old. "Ours the Task Eternal" is taken from a Walt Whitman poem entitled "Pioneers" and ties in with the eternal quality of the phoenix.

And so, the Carleton University coat of arms symbolizes sound learning, good citizenship, and the highest hopes of humanity.

The Diploma

The diploma the graduates receive at Convocation is the certificate of qualification which publishes the fact that the student has fulfilled all the requirements and completed the prescribed course of study for the degree. As the senior academic legislative body

of the University, it is the Senate which has determined whether the requirements have been met. The signatures of both the Chancellor and the President of the University appear on the diploma: the Chancellor because of his role in conferring the degree, and the President who, as Chair of Senate, certifies that Senate has enacted the required motion to award the degree. The Seal of the University is affixed to the diploma as a mark of authentication.

Academic Dress

The academic dress of Carleton University results from a compromise between that found in the ancient foundations of Britain and Canada and the American Intercollegiate Code. All three hoods—bachelor's, master's, and doctor's—are of the simple or Oxford shape. The bachelor's hood is made of black stuff; the master's and doctor's are made of black silk and all are lined with silver silk with two chevrons, one of red and one of black. From bachelor's to doctor's, the hoods are progressively longer and opened to show more and more of the lining.

The velvet border of the hoods denotes the degrees granted according to the following colour combinations: architecture is cerise; arts is white; commerce is camel brown; computer science is royal blue; engineering is orange; industrial design is dark cardinal; international business is camel brown with a red cord sewn slightly in from the lower border; journalism is white with a black cord sewn slightly in from the lower border; management studies is camel brown with a black cord sewn slightly in from the lower border; music is venetian pink; public administration is peacock blue; science is golden yellow; social work is cream; and doctor of philosophy is purple.

The master's and bachelor's gowns, to be worn with the above hoods, is of full length, made of black stuff, with a gathered yoke behind, and long open-fronted sleeves. The doctoral gown is of full-style, made of fine royal blue cloth with facings of light blue silk, with a full gathered yoke behind, and closed sleeves with an opening at the elbows.

The two shades of blue in the doctoral gown are those of the United Nations, and are meant to recognize the University's long-standing interest, from its earliest years, in international affairs and issues. The colours were chosen when the University awarded its first honorary degree, in 1954, to the second Secretary General of the United Nations, the late Dag Hammarskjöld. The tradition of awarding honorary degrees to Secretaries General of the United Nations has continued since that time.

The gown of the honorary Doctor of Laws, Literature, Science, Engineering, Architecture or Fine Arts is a full robe with bell-shaped sleeves. It is made of fine royal blue cloth with facings and sleeves in light blue silk. The hood is made of the same material as the gown, has the same lining as that for the degrees

granted by examination, and is bordered with dark mauve for the degree of Doctor of Laws; vibrant blue for the degree of Doctor of Literature; red for the degree of Doctor of Science; orange for the degree of Doctor of Engineering, cerise for the degree of Doctor of Architecture, and dark cardinal for the degree of Doctor of Fine Arts.

Alumni Park

Weather permitting, today's Convocation ceremonies are being held outdoors in Alumni Park which was dedicated in 1992, at the initiative of the Carleton University Alumni Association, to commemorate the University's 50th anniversary. The arbour under which the Chancellor, the President and Vice-Chancellor, the representative of the Board of Governors, and the faculty are seated is a generous gift from the Association. It provides a permanent stage for Carleton's Convocation ceremonies and other events such as theatrical productions, concerts, and the like. Future plans for the Park include an enhancement of the existing fountain area with the construction of a plaza and landscaping to open up views to the Rideau River.

The Presiding Officer of Convocation is the Chancellor of the University, Arthur Kroeger, O.C., M.A., LL.D.

Accompanying him on the podium are Lloyd Stanford, M.A. (morning ceremony), and Gail Mutton, B.A., (afternoon ceremony), representing the Board of Governors, and Richard J. Van Loon, B.Sc., M.A., Ph.D., President and Vice-Chancellor.

Assisting the Chancellor are:

Chong H. Chan, B.Sc., M.A.Sc., Ph.D., P.Eng.
Professor of Engineering
Clerk of Senate
and Marshal of Convocation

Y. Aleksandra Bennett, M.A., Ph.D.
Associate Professor of History
and Assistant Marshal of Convocation

Timothy A. Pychyl, B.Sc., B.Ed., M.A., Ph.D.
Assistant Professor of Psychology
and Assistant Marshal of Convocation

Donald L. Bailey, B.Eng., M.Eng.
Instructor of Systems and Computer Engineering
and Beadle of Convocation

James J. Cheetham, B.Sc., Ph.D.
Assistant Professor of Biology
and Beadle of Convocation

Leslie A. Copley, B.Sc., M.Sc., Ph.D.
Professor of Physics
and Beadle of Convocation

Brian C. Mortimer, B.Sc., M.Sc., Ph.D.
Associate Dean of the Faculty of Science
Associate Professor of Mathematics and Statistics
and Beadle of Convocation

Delphine Rossille, Eng.Dipl., M.Sc., Ph.D.
Assistant Professor of Systems and Computer Engineering
and Beadle of Convocation

Donald L. Russell, B.Eng., M.S., Ph.D.
Associate Professor of Mechanical and Aerospace Engineering
and Beadle of Convocation

Also assisting at Convocation:

Linda Backer
Assistant Dean/Registrar
Faculty of Graduate Studies and Research

Pegge Clarke
Assistant Registrar
Faculty of Engineering and Design

Ruth Lifeso, B.Sc.,
Assistant Dean and Registrar
Faculty of Science and School of Computer Science

Carol Corkran
June Drayton Callendar, B.Soc.Sc.
Kathleen Hickey, B.A.
Glendy Wong, B.A.
Registrar's Office, Faculty of Graduate Studies and Research

Mary Orser
Sue Phillips
Lisa Ralph
Registrarial Services, Faculty of Science
and School of Computer Science

Marlene Groves
Colin Harkness, B.A.
Registrarial Services, Faculty of Engineering and Design

Anne-Marie Lépine
Lisa Tsotroudīs, B.A.
Norman Smithley
Records and Registration Services

Pamela Mallon
Patrick O'Brien, B.A., D.P.A.
Gail Stanton
Office of the President

Heather Brown, B.A.
Allister Hain, B.A., M.A.
Nanci Jolicoeur
Tambrac Knapp
MaryAnne Pomainville
Janet Weichel McKenzie, B.A.
University Communications

Cathy Pearen
Senate Office

Honorary Degree Recipient



Laurent Beaudoin

Laurent Beaudoin, C.C., O.Q., B.A., M.Comm., C.A., D.Sc., D.Ec., D.C.L., LL.D., Chairman of the Board and of the Executive Committee of Bombardier Inc., will be awarded the degree of Doctor of Engineering, *honoris causa*, at the 10:00 a.m. ceremony on Friday, June 11, "in recognition of a distinguished career leading Bombardier into a thriving and growing aerospace business in Canada and the world."

Order of Proceedings

Friday, June 11, 10:00 a.m.



Chancellor Arthur Kroeger, O.C., M.A., LL.D., presiding.

*The audience is requested to stand when the Academic Procession arrives,
to remain standing until 'O Canada' has been sung, and at the conclusion of the ceremony
to remain until the Academic Procession has left.*

Processional Music

Fraser Clark, B.A., M.A. (bagpipes)
John Robert Coghill Jr., B.Mus. (bagpipes)
David Yeo (snare drum)

O Canada*

(the audience is invited to sing)

Welcome by the Master of Ceremonies

John W. ApSimon, B.Sc., Ph.D.
Vice-President (Research and External)

Conferring of the Degree of

Doctor of Engineering,

honoris causa, upon

Laurent Beaudoin, C.C., O.Q., B.A., M.Comm., C.A., D.Sc., DEc., D.C.L., LL.D.
(presented by Paul V. Straznicky, Dipl.Ing. M.Eng., P.Eng.,
Professor of Mechanical and Aerospace Engineering)

Convocation Address

Laurent Beaudoin

Conferring of Degrees by Examination

Warrant

Chong H. Chan, B.Sc., M.A.Sc., Ph.D., P.Eng.
Clerk of Senate

Awarding of Medals

Recessional Music

** see next page for words*

O Canada



O Canada! Our home and native land!

True patriot love in all thy sons command.

With glowing hearts we see thee rise,

The True North strong and free!

From far and wide, O Canada,

We stand on guard for thee.

God keep our land glorious and free!

O Canada, we stand on guard for thee.

O Canada, we stand on guard for thee.

Recipients of Degrees



Doctor of Philosophy

(presented by Professor R.C. Blockley,
Dean of the Faculty of Graduate
Studies and Research)

Degrees conferred at Spring Convocation
are awarded by Senate in February and in
June. Degrees awarded in February are
denoted by an asterisk (*).

Jeffrey Stuart Cain

B.Eng., M.Eng. (Carleton)

Aerospace Engineering
Investigation of the Crossed Flexure
Pivot and the Dynamics of the
Momentum Management System
Spacecraft Control Component and
the Dynamically Tuned Gyroscope
Supervisors: J. McPhee and
D.A. Staley

* Kai Deng

B.S. (Tonji, China), M.S. (Hunan, China)

Civil Engineering
Dynamic Response of Certain Types
of Highway Bridges to Moving
Vehicles
Supervisor: J.L. Humar

* Praveen Kumar

B.Eng., M.Eng. (Roorkee, India)

Civil Engineering
Torsional Response of Buildings
during Earthquake
Supervisor: J.L. Humar

Dagmar Svecova

*B.Eng. (Slovak Technical University),
M.Eng. (Carleton)*

Civil Engineering
Behaviour of Concrete Beams
Reinforced with FRP Prestressed
Concrete Prisms
Supervisor: A.G. Razaqpur

* James Andrew Cherry

B.A.Sc. (Waterloo), M.Eng. (Carleton)

Electrical Engineering
Theory, Practice, and Fundamental
Performance Limits of High-Speed
Data Conversion Using Continuous-
Time Delta-Sigma Modulators
Supervisor: W.M. Snelgrove

* Norman Maurice Filiol

B.Eng., M.Eng. (Carleton)

Electrical Engineering
Sigma-Delta Modulation for FM
Mobile Radio
Supervisor: C. Plett

* Parsya Roohi Larijani

B.Sc. (Tebran University), M.Eng. (Carleton)

Electrical Engineering
CDMA Access to Multimedia Wireless
PCS Systems
Supervisors: H. Hafez and
I. Lambadaris

Marin Litoiu

M.Sc. (Craiova, Romania),

Ph.D. (Politehnica, Romania)

Electrical Engineering
Designing High Performance
Software Systems - A Quantitative
Approach
Supervisor: J.A. Rolia

Peter M. Nyasulu

B.Sc. (Malawi), M.Eng. (Carleton)

Electrical Engineering
System Design for a Computational-
RAM Logic-In-Memory Parallel-
Processing Machine
Supervisors: R. Mason and
W.M. Snelgrove

* Rolando Ramírez Ortiz

B.Sc. (ITESM-CEM, Mexico),

M.Eng. (Carleton)

Electrical Engineering
Circuit Design Rules for Mixed Static
and Dynamic CMOS Logic Circuits
Supervisor: J.P. Knight

Lizhong Sun

B.Eng. (Fuzhou, China), M.Eng. (McGill)

Electrical Engineering
High Speed Submicron CMOS
Oscillators and PLL Clock Generators
Supervisor: T. Kwasniewski

* Elie Torbey

B.Sc. (Oklahoma), M.A.Sc. (Concordia)

Electrical Engineering
Control/Data Flow Graph Synthesis
using Evolutionary Computation and
Behavioral Estimation
Supervisor: J.P. Knight

*** Fang Wang**

B.Eng. (Ning Jiaotong, China), M.Eng. (Carleton)

Electrical Engineering
Knowledge Based Neural Networks
for Microwave Modeling and Design
Supervisor: Q.J. Zhang

Awad Bodalal

B.Sc., M.Sc. (Gargounis, Libya)

Mechanical Engineering
Fundamental Mass Transfer Modeling
of Emission of Volatile Organic
Compounds from Building Materials
Supervisors: J.S. Zhang and E.G. Plett

Master of Engineering

(presented by Professor R.C. Blockley,
Dean of the Faculty of Graduate
Studies and Research)

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are awarded by Senate in February and in
June. Degrees awarded in February are
denoted by an asterisk (*).

Martin John Baumann

B.Eng. (McMaster)

Aerospace
An Experimental Investigation of the
Aerodynamic Effects of Roughness
Consisting of Arrays of Depressions
in Surfaces

Hassan Kahiye Farah

M.Sc. (Riga Civil Aviation Engineer's
Institute)

Aerospace
The Fuzzy Logic Control of Aircraft

Kevin H. Glenney

B.Eng. (Carleton)

Aerospace
Preliminary In-flight Ice Accretion
Measurements for Validation of
Simulation Methods

Trevor Spence Harrison

B.Eng. (Carleton)

Aerospace
Bearing Strength of Single Shear
CRFP Joints under Combined
Loading

David Victor Krizan

B.Eng. (Carleton)

Aerospace
Assessing the Effects of Corrosion
Damage on Longitudinal Fuselage
Skin Splices

*** Abdul Kader Al Kadry**

B.Eng. (American University of Beirut)

Civil
Traffic Signal Central Control:
A Methodology to Determine
Effectiveness

Dale Braun

B. Eng. (Carleton)

Civil
Behaviour of Composite Structural
Laminate Plates

Yongqing Han

B.Eng. (Dalian, China)

Civil
Crack Arrest Toughness of
Weldments for Ship Structure

Angela R. Nino

B.A., B.Eng. (National Autonomous
University of Nicaragua)

Civil

Michal Podsiadlo

B.Sc. (Krakow)

Civil

Su-Kim Roy

B.Eng. (Carleton)

Civil
Development and Incorporation of a
NAPL Residual into the Lenhard-
Parker Pressure-Saturation Hysteretic
Model

Jun Sugawara

B.Eng. (Meiji, Japan)

Civil

*** Jody Margaret Wells**

B.Eng. (Carleton)

Civil
The Biological Reductive
Dechlorination of Chlorinated
Compounds in a High Rate Anaerobic
Reactor

*** Rajeev Kumar Bector**

B.Eng. (Carleton)

Electrical
Performance of Soft Handoff in
PCS Environment

*** Erik Boch**

B.Eng. (Carleton)

Electrical
An Investigation of Transceiver
Design for High Bandwidth, Indoor
Wireless Local Area Networks
Operating in the 20-60 GHz Range

Michael C. Britton

B.Eng. (Carleton)

Electrical
Practical Square Cross-Section Helical
Antennas

*** Christine Cai**

B.Eng., M.Eng. (XiDian, China)

Electrical
Power Control in Wideband Cellular
CDMA Systems

Michael Roger Edwards

B.Sc. (Queen's)

Electrical
An Airborne Direction Finder for
GPS Interference Sources

Walid El Taki

B.A.Sc. (Ottawa)

Electrical

Ferass Elrayes

B.Eng. (Damascus)

Electrical
Design and Implementation of an
ARM 2.0 Compatible Performance
Monitoring and Model Building
Framework

*** Junaid Ahmed Israr**

B.Eng. (Carleton)

Electrical
Design and Analysis of a Multi-
Variable Rate Channel Access Scheme
for Geostationary Satellite Network

*** Stelian Mocanita**

Dip.Eng. (Polytechnic Institute of Iassy,
Romania)

Electrical
High-Order Bandpass Sigma-Delta
Modulators

*** Walter Allan Mycroft**

B.Eng. (Carleton)

Electrical

A 1-Bit Superconductive Phase Shifter
in Coplanar Waveguide at Ka-band

Nausheen Naz

*B.Eng. (NED University of Engineering and
Technology, Pakistan)*

Electrical

Temporal Variation Characterization
for LMCS Channel and System
Design Implications

Tie Peng

B.Eng. (Huazhong), M.Eng. (Beijing)

Electrical

VLSI Implementation of High-Speed
Cellular Automata Encryption
Algorithm for Data Communications

Syed Kamran Raza

*B.Eng. (NED University of Engineering of
Technology, Pakistan)*

Electrical

A Plug-and-Play Approach with
Distributed Computing Alternatives
for Network Configuration
Management

Chunhui Teng

*B.Sc. (University of Science and Technology,
China), M.Eng. (Shenyang Institute of
Technology)*

Electrical

Alarm Correlation in ATM Networks

Yanbin Wang

B.Sc. (Nanjing), M.Sc. (McGill)

Electrical

Threshold Voltage Control
by Backgating In Fully Depleted SOI
CMOS

*** Xia Zhao**

B.Eng. (Tsinghua, China)

Electrical

*** Laurentiu Dan Zupcau**

*Dip.Eng. (Polytechnical Institute of Iasi,
Romania)*

Electrical

An Approximate Quantizer for High
Speed Modulators with Carry Save
Arithmetic

*** Vikram Digambar Kulkarni**

B.Eng. (University of Poona)

Mechanical

A Piecewise Linear Interface Tracking
Method for 3-D Eulerian
Incompressible Fluid Flows

Andrew Morrison

B.A.Sc. (Waterloo)

Mechanical

Finite Difference Model of a Spiral
Ground Heat Exchanger for Ground-
Source Heat Pumps

*** Liang Zhou**

*B.Eng. (Central South University of
Technology, China)*

Mechanical

Interfacial Flow Modeling in the Die
Casting Process

Arshad Usman

B.Eng. (N.E.D. University, Karachi)

Telecommunications Technology

Management

The Effect of Product Price and
Product Category on Online Payment
Methods and on the Decision to Own
Secure Server

Master of Architecture

*(presented by Professor R.C. Blockley,
Dean of the Faculty of Graduate
Studies and Research)*

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are awarded by Senate in February and in
June. Degrees awarded in February are
denoted by an asterisk (*).

Hazem Samy Osman

B.Arch. (Ain-Shams University)

Crossings: Journey Through Le

Corbusier's Villa La Roche

Gary James Otte

B.A. (Simon Fraser)

Photographing the Void: The Camera
and the Representation of Islamic
Architecture

Tariq Mahmood Sandhu

*B.A. (Punjab), B.Arch. (University of
Engineering and Technology, Lahore)*

The Idea of Suhbat (Companionship)
in Complexities of Islamic Urban
Environment

Bachelor of Engineering

*(presented by Professor A.M. Khan,
Acting Dean of the Faculty of
Engineering and Design, assisted by
representatives of Departments)*

Degrees conferred at Spring Convocation
are awarded by Senate in February and in
June. Degrees awarded in February are
denoted by an asterisk (*).

AEROSPACE

Kishor Belkhode

Terry Alan Bisson

with distinction

Jeffrey Michael Chrysler

with distinction

Sheldon Robert Clarke

Andrew John Craig

Darryl Patrick Edwards

B.Sc. (Dalhousie)

Quinn Gammie

with distinction

*** Albert G. Gibson**

Shane Goodhand

Ryan William Granlund

James Scott Grant

Cory Jason Hamelin

with distinction

Eric Douglas Hedstrom

with distinction

Adam Theodore Hendriks

with high distinction

*** Peter Raymond Jacob Johnson**

Alexander Kim

Piotr Leszek Kostka

with high distinction

Sándor D. Kostya

with high distinction

Joseph Gérald François Philippe
Lemire

Craig M. Lisowski
with distinction

Natasha Kathleen Mann

Shawn Thomas Mason
with distinction

Lianne Marguerite Paquette
with distinction

Kirk David Pegelo

Carmelo Scaini

Richard Stevenson

Tatjana L. Tomic

Colin Christopher Turner

Mark Aaron Ulrich
with distinction

Anita Leonora VanBarneveld
B.Eng. (Carleton)
with distinction

CIVIL

Kenneth Peter Archer

Arvind Balaram
with high distinction

John Travis Buck
with distinction

S. Kent Campbell
Concentration in Management

Wei-Ko Chen
with distinction

Michael Alexander Kam
with distinction

Shahril Izzuddin Kasim

Constance Man

Katrin Miovski
with distinction

Andrew John O'Keefe

Samer Ouwes

Nina Veronica Quarshie

Ginette Isabelle Riopel
Concentration in Management

Joan Andal Romano
Concentration in Management

Cees Roosendaal

Philip Raymond Sheridan

Kuljit Singh Sodhi

COMPUTER SYSTEMS

Jeyaseelan Aiyadurai

Idrees Ali
with distinction

Ragavan Balasubramaniam

Gunabalan Balasundaram
with distinction

Abdelkrim Bouzid
B.Sc. (Algiers), M.Sc. (Case Western Reserve)

John Boyer
with high distinction

Philip Cheung

Peter Shawn Drake
with high distinction

Christopher Ellison
with distinction

Ilyea Erlikhman
with high distinction

Maryam Ghannad

Timothy F. Hu

David Kennedy
with distinction

Balarednam Kugathan
with high distinction

Joshua Patrick Leroux

Jonathon Hilding Clifford Lundstrom
with distinction

David Jonathan MacDonald
B.Sc. (Acadia)
with high distinction

Paul A. Markey
B.Eng. (Carleton)
with distinction

David James McMullan
B.Sc. (Queen's)
with high distinction

Brian Nesbitt
with distinction

Sean Quinn O'Connell

Dominic Peluso
with high distinction

Thuy Thi Thanh Pham
with high distinction

Boguslav Pluskota
B.Sc. (Ottawa)
with distinction

Scott Jeremy Roeske
with high distinction

Brian R. T. Ross
with high distinction

Van Morning Sreng
with distinction

Suravinth Sundralingam
with high distinction

Suthershan Sundralingam
with distinction

Dominic Thambipillai
with distinction

Thushyanthy Thirunavukkarasu

Prabakar Thiagarajah

Kiriharan Thurairasa
with distinction

Andrew Rainer Triebe
B.Eng. (Carleton)
with high distinction

Co Loc Truong

Kiet Vu

Geoffrey Waddington
with high distinction

James Patrick Wisener

ELECTRICAL

Zuhur Adem

Ahmed Affat

Abbas Salad Agane

Bashar Abdullah Alshaba

Rony Everildo Amaya
with high distinction

Tsehayc Andom

Tyler Joseph Bailey
with distinction

*** Ruthirapragas Balasundaram**

Andrew Brearley
B.Eng.(Carleton)

Jason Bright
with high distinction

Duane Burchell

Matthew John Carew
with distinction

Siva Chockalingam

Jeffery S. Clark

*** Alexander Concettini**
with distinction

Joseph B. Discher
B.Eng. (Carleton)

Keith Doherty
with distinction

Amir Dowlatkhalil

Kanagasagaram Dushyanthan
with distinction

Ronald Stewart Fernando
with high distinction

Abdulfatah Ali Gelle

Christian Dino Gerolami
B.Eng. (Queen's)
with high distinction

Corey S. Goss
with high distinction

Andrew J. Greenlaw

Paul Aravindan Gunaratnam

Shoeb Hafiz

Patrick Ho
Concentration in Management
with distinction

Yen Huynh

Khieng Man Hy

Omer Irshad

Fadi Ismail

Tauseef A. Israr

Sribalamylvannan Kandiah

Sun Young Kang

Richard Keating

Sundus Kubba
with high distinction

*** Suthan Kuhanesan**

Athithan Kunaratnam

Jason Lessard
with distinction

*** Wai Hung Leung**

Tin Lung Li

Ian Maccoomb

*** Omobola Harry Makinde**

Sureshkumar Placidus
Mariyanayagam

Yogeswaran Yohn Markandu

Vladimir Martincevic
with high distinction

Michael Shawn M'Cartney
with distinction

*** John M'Inerney**

Karan Mehandru
with high distinction

Robert Milicevic

Arshad Movlai

Inthusekaran Muthucumarasamy

Val Neekman

*** Christina Anita O'Regan**
with high distinction

Olayinka Mobolaji Okotore

Riccardo Piscatelli

Ryan Philip Proulx

*** Vijitha Puhalarajan**

Selvakumar Rajagopal

Rajamukunthan Rajasekaram

*** Vijayendran Ratnavel**

Serge Rivard

Oussama Saafein

*** Aziza Salem**

Sivaruban Sathasivam

Hussein Siad

William Sitch
with distinction

Kanendran Sivayogasundaram

Leah L. Smith

Marcelline Sripathamrajah

Amre Sultan

Kin Tam

Maud Teng

*** Nagib Tharani**

Amirthalingam Tharmalingam

Nirothayan Theyagarajah

Ravinthar Thomas

Derick Niranjan Thurairajah

* Thillainadesan Thyagarajah

Robert Watt

Jerrold Wen
Concentration in Management

Michael Wong

Karen Marie Wood
B.Com. (Carleton)
with distinction

Simon Yu
with distinction

* Zhouhong Zhang
with high distinction

ENVIRONMENTAL

Nader Amjadi

Kevin John Britton

Andrea Jane Dingledine

Kathryn Marie Furlong
with high distinction

Austin R. Kanagasuriam

Thomas J. Levy

Jit-Chai Lim

Patricia Gail Lloyd
B.A. (Carleton)

Lorri Michelle McLennan
with distinction

* Jamie Micheal Mullings

* Vernon Henrik Bech Nielsen

Natalie Vanessa Ollerhead
B.Sc. (Memorial)
with distinction

Purvi Patel

Julia Tarnowski
with distinction

Philip Warren
with distinction

MECHANICAL

Cameron D. A. Barr

Elaine Anne Bell

Filippo A. M. Biondi
with high distinction

Shiva Bissoon

* Tedd Wace Campbell

Tom Dai

Kanthappu Elavalagan
B.Eng. (Carleton)

* Kathleen Marie English

* Heather Arlene Garner
Concentration in Computer-Integrated
Manufacturing

Robert M. Gosselin

Gordon A. Kirkham
Concentration in Computer-Integrated
Manufacturing

Chad N. Lawrence
Concentration in Computer-Integrated
Manufacturing

Roger David Lesperance
Concentration in Computer-Integrated
Manufacturing

Nathan J. Mercier
Concentration in Computer-Integrated
Manufacturing

Lucas Morse

Mark O'Neil
B.A. (Queen's)
with high distinction

Giacomo Domenico Panico

Oswald Vincent Peters
Concentration in Computer-Integrated
Manufacturing

* Natasha Pinsent

David Eric Poff
B.Sc. (Dalhousie)
with distinction

Scott David Raymond

Christopher Thomas Regan
Concentration in Computer-Integrated
Manufacturing

Christopher Scott Robb
Concentration in Computer-Integrated
Manufacturing

Stephen Keir Roberts
with high distinction

* Tim G. Rossi

Trevor Norman Sawchyn
Concentration in Computer-Integrated
Manufacturing

Scott Staples

* Alok Takkar

Stephen Mark Trigg

Kenneth John Truesdell

Jonathan A. Tyo
B.Sc. (Queen's)

Megan L. Wallace

Shon A. Wirth
Concentration in Computer-Integrated
Manufacturing

Bachelor of Architecture
(presented by Associate Professor
J. Benjamin Gianni, Director of the
School of Architecture)

Degrees conferred at Spring Convocation
are awarded by Senate in February and in
June. Degrees awarded in February are
denoted by an asterisk (*).

Hind Abdul-Baki

Sheryl Alberico
B.A. (Ryerson)
with high distinction

Nada Blasutto

*** Fiona Boey**

Christopher William Brett
B.A. (Carleton)
with high distinction

Jeremy Brown
with distinction

Anthony Bruni

Jodi Buck

Kimberley Christine Chen See
with high distinction

John Albert Cheng
B.Sc. (Alberta)
with distinction

Raymond Chow
with distinction

William Andrew Curtis

Stefan Ivan Russon Danicich
with distinction

Daniel Den Haan

Paul Field
with distinction

Aaron Fung
with distinction

Jatinder Gill
with high distinction

Lesley Graham
with high distinction

Darren Andrew Hastings
with distinction

Drew Hauser
B.A. (Western)
with high distinction

Vanessa Hii
with high distinction

Joyce Joi-Yee Ip
with distinction

Mark Ip

Sandra Iskander
with distinction

Michelle Lam
with distinction

Daniel Ho Tin Ling
with high distinction

Timothy Sean Lo

Maia Elizabeth Low
B.A. (U.B.C.)
with distinction

Ching Luk
with high distinction

Corinne Clare Maloney

Lisa Suzanne Marko

Erika L. Mayer
with distinction

Randall McLenaghan Rowat
with high distinction

John Marshall McMillan
with distinction

Doron Meinhard
with distinction

Lászlo Andras Mohácsi
with distinction

Krista D. Norman
with distinction

Todd M. Poirier
with distinction

Lindsay Catherine Reid
with high distinction

Tony Joseph Ross
with high distinction

Tomasz Rudowicz

Ozayr S. Saloojee
with high distinction

Shaheen Seth

John Peter Shumaker

Anissa Andrea Szeto
with distinction

Elaine Kar Wing To
with distinction

Lisa S. Tobin
with high distinction

Eric E. Tomas

Andy Yu-Cheng Tsao
with high distinction

Julia Elaine Tworkowski

Sybil Wa
with high distinction

Theolonious D. Worcester-Smith

Eren Rebecca Wuest
with distinction

Kevin Ka Ming Yeung

Bachelor of Industrial Design

*(presented by Associate Professor
Martien de Leeuw, Director of the School
of Industrial Design)*

Degrees conferred at Spring
Convocation are awarded by Senate in
February and in June. Degrees awarded
in February are denoted by an asterisk
(^{*}).

Vittorio Bologna

Peter Demerdjiev
B. Arch. (Bulgaria)

Timothy Michael Fagan

Mark S. Fischer

Miles Geoffrey Hammond

James Patrick Henderson
with distinction

Brent K. Hyde
with distinction

Sven Lau

P. Jeremy List

with logo distinction

Celine Nadreau-Roinsol

with distinction

Anil Patni

Stephane Sanschagrin

Christopher David Zahorec

Adam Paul M. Zgola

with distinction

Honorary Degree Recipient



Richard E. Taylor

Richard E. Taylor, B.Sc., M.Sc., Ph.D., Professor, Stanford Linear Accelerator Center, Stanford University, will be awarded the degree of Doctor of Science, *honoris causa*, at the 2:00 p.m. ceremony on Friday, June 11, "in recognition of an outstanding contribution to the field of particle physics, culminating in the award of the Nobel Prize for Physics."

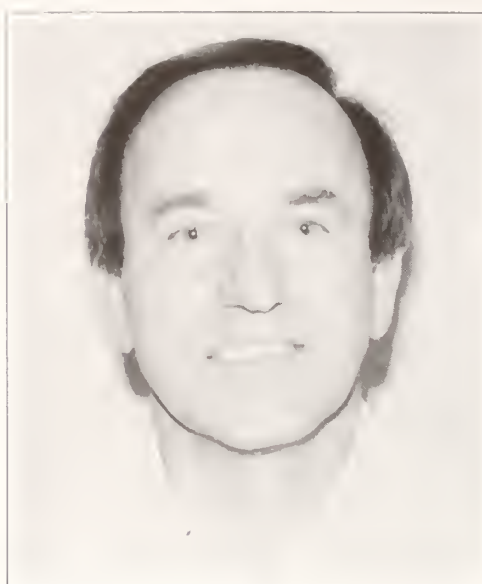
1999 Founders Award Recipient



G. Ross Love

G. Ross Love, M.A., Ph.D., former Vice-President (Academic), Carleton University, will receive the Founders Award, the University's highest non-academic award, at the 2:00 p.m. ceremony on Friday, June 11, "in recognition of exemplary service to the University."

1999 High School Teaching Award Recipient



**Henry Jakubinek, B.Sc., B.Ed.
Department of Chemistry
Merivale High School**

The High School Teaching Awards were established to acknowledge outstanding high school teachers in Eastern Ontario who have provided their students with the influence and inspiration to excel. Teachers are nominated for the awards by Carleton University graduating-year scholarship winners who have graduated from Eastern Ontario high schools.

Order of Proceedings

Friday, June 11, 2:00 p.m.



Chancellor Arthur Kroeger, O.C., M.A., LL.D., presiding.

*The audience is requested to stand when the Academic Procession arrives,
to remain standing until 'O Canada' has been sung, and at the conclusion of the ceremony
to remain until the Academic Procession has left.*

Processional Music

Fraser Clark, B.A., M.A. (bagpipes)
John Robert Coghill Jr., B.Mus. (bagpipes)
David Yeo (snare drum)

O Canada*

(the audience is invited to sing)

Welcome by the Master of Ceremonies

John W. ApSimon, B.Sc., Ph.D.
Vice-President (Research and External)

Conferring of the Degree of

**Doctor of Science,
honoris causa, upon**

Richard E. Taylor, B.Sc., M.Sc., Ph.D.,
(presented by Robert K. Carnegie, B.Sc., M.A., Ph.D., Professor of Physics)

Convocation Address

Richard E. Taylor

Conferring of Degrees by Examination

Warrant

Chong H. Chan, B.Sc., M.A.Sc., Ph.D., P.Eng.
Clerk of Senate

Awarding of Medals

Conferring of the Founder Award upon

G. Ross Love, M.A., Ph.D.
(presented by Maria McClintock, B.A.,
Vice-President, Membership and Operations, Carleton University Alumni Association)

Presentation of a High School Teaching Award to

Henry Jakubinek, B.Sc., B.Ed.
(presented by G. Stuart Adam, B.J., M.A., Ph.D. Vice-President (Academic) and
Maria McClintock, B.A., Vice-President, Membership and Operations, Carleton University Alumni Association)

Recessional Music

** see next page for words*

O Canada



*O Canada! Our home and native land!
True patriot love in all thy sons command.
With glowing hearts we see thee rise,
The True North strong and free!
From far and wide, O Canada,
We stand on guard for thee.
God keep our land glorious and free!
O Canada, we stand on guard for thee.
O Canada, we stand on guard for thee.*

Recipients of Degrees



Doctor of Philosophy

(presented by Professor R.C. Blockley,
Dean of the Faculty of Graduate
Studies and Research)

Degrees conferred at Spring Convocation
are awarded by Senate in February and in
June. Degrees awarded in February are
denoted by an asterisk (*).

* Catherine Bayliss

B.Sc., M.Sc. (Guelph)

Biology

Defence reactions of Soybean Roots at
Single-Cell Resolution: A Study of
Vacuolar Phenolics by Autofluorescence
Supervisors: M. McCully and
M.J. Canny

Brian Leung

B.Sc. (British Columbia)

Biology

Assessing and Developing the Use of
Fluctuating Asymmetry as a
Bioindicator of Environmental Stress
and Quality of Organisms
Supervisor: M. Forbes

Christine Ann Morgan

B.Sc. (Carleton)

Biology

Localization, Cloning, and
Identification of the tdt Genes from
Pseudomonas sp.A 19-6a and their
Distribution in Pulp Mill Effluent
Treatment Systems
Supervisor: R.C. Wyndham

* Mikailou Sy

B.Sc./A., M.Sc. (Laval)

Biology

Seed-Source Variation in Carbon
Allocation and Carbon Isotope
Discrimination in Juvenile Black
Spruce (*Picea mariana* (Mill.) B.S.P.)
Supervisor: L. Flanagan

Arghavan Victoria Nawaby

B.A.Sc., M.A.Sc. (Ottawa)

Chemistry

Process Optimization and Monitoring
in the Printing Industry
Supervisor: P. Kruus

Christopher Andrew White

B.Sc. (Carleton)

Chemistry

Magneto-Structural Correlations of
Novel Copper (II) Molecular
Materials
Supervisor: R. Crutchley

Michael James Byron

B.Sc. (Geneseo State University),

M.Sc. (Laurentian)

Earth Sciences

Physical Volcanology and
Lithogeochemistry of the Mata Da
Corda Formation, Minas Gerais,
Brazil
Supervisors: D.H. Watkinson and
H.L. Gib

Laurent Godin

B.Sc., M.Sc. (Quebec)

Earth Sciences

Tectonic Evolution of the Tethyan
Sedimentary Sequence in the
Annapurna Area, Central Nepal,
Himalaya
Supervisors: R.L. Brown and
S. Hanmer

* Maurice Lamontagne

B.A.Sc. (Laval), M.Sc. (Western Ontario)

Earth Sciences

Rheological and Geological
Constraints on the Earthquake
Distribution in the Charlevoix Seismic
Zone, Quebec, Canada
Supervisor: G. Ranalli

Frank Santaguida

B.Sc., M.Sc. (Waterloo)

Earth Sciences

The Paragenetic Relationships of
Epidote-Quartz Hydrothermal
Alteration Within the Noranda
Volcanic Complex, Quebec
Supervisors: D. Watkinson and
H. Gibson, and M. Hannington

* Bin Chen

B.Sc., M.Sc. (Hangzhou, China)

Mathematics

Functional Limit Theorems
Supervisor: M. Csörgö

Markus Roland Orasch

D.Sc. (Technical University of Vienna)

Mathematics

Multiple Change-points With an Application to Financial Modeling
Supervisor: M. Csorgo

*** Jianyu Wang**

B.Sc. (Nanjing, China), M.Sc. (Nankai, China)

Mathematics

On Some Properties of the Diagonal Flip Adjacency Graphs of Near Triangulations on Surfaces
Supervisor: Z. Gao

*** Daryoush Sheikh-Bagheri**

B.Sc. (Tehran, Iran), M.Sc. (Western Ontario)

Physics

Monte Carlo Study of Photon Beams from Medical Linear Accelerators: Optimization, Benchmark and Spectra
Supervisor: D. Rogers

David Alexander Hutchinson

B.Math. (Waterloo), M.Eng. (Carleton)

Computer Science

Parallel Algorithms in External Memory

Supervisors: J.-R. Sack and F. Dehne, and A. Maheshwari

*** Mike Just**

B.Sc. (Laurentian), M.C.S. (Carleton)

Computer Science

On the Temporal Authentication of Digital Data

Supervisors: P. van Oorschot and E. Kranakis

Muralitharan Thiyagarajah

B.Eng. (Concordia), M.C.S. (Carleton)

Computer Science

Attribute Cardinality Maps: New Query Result Size Estimation Techniques for Database Systems
Supervisor: J. Oommen

Master of Science

(presented by Professor R.C. Blockley,
Dean of the Faculty of Graduate Studies and Research)

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Susan B. Borys

B.Sc. (McMaster)

Biology

Evaluation of High-Throughput STR Technologies for Potential Implementation in the National DNA Databank

*** Nancy Jacynthe Leonard**

B.Sc. (McGill)

Biology

Ectoparasitism of Odonate Hosts: Host Response to Parasitism and Host Sex Bias in Parasitism

*** Nadereh Mir-Rashed**

B.Sc. (Tehran, Iran)

Biology

Molecular and Functional Analyses of Incompatibility of Genes AT het-6 as Genetic Markers in Populations of Neurospora

*** Min Zhao**

M.D. (Zhejiang Medical, China),

M.Sc. (Shanghai Medical, China)

Biology

Morphology and Physiology of Neurons in the Young Rat's Ventral Nucleus of the Lateral Lemniscus

*** Sabrena Elizabeth MacKenzie**

B.Sc. (Saint Mary's)

Chemistry

Isolation and Characterization of New Fumonisins from Fusarium Moniliforme NRRL 13616 and Development of New Analytical Techniques

Marcin Pawlak

B.Sc. (Carleton)

Chemistry

Zero Valent Iron and Ultrasound as Potential Remediators of Certain Pollutants in Water

Thomas Daniel Pfister

B.Sc. (McGill)

Chemistry

Phosphorylation Regulation in Two Species of Cold-Hardy Goldenrod Gall Insects

Christopher Gallagher

B.Sc. (Carleton)

Earth Sciences

Regional-Scale Transposition and Late Large-Scale Folding in the Teslin Zone, Pelly Mountains, Yukon

Jeffrey Paul Kiernan

B.Sc. (Western Ontario)

Earth Sciences

Lithostratigraphy, Sedimentology and Diagenesis of the Upper Ordovician Hull Beds and Verulam Formation, Upper Ottawa Group, Eastern Ontario

*** Barbara Elizabeth Medioli**

B.Sc. (Dalhousie)

Earth Sciences

Cenomanian to Santonian Sea-Level History from a Proximal Setting in the Western Canada Sedimentary Basin, Southern Rocky Mountain Foothills, Alberta: Sedimentology, Micropaleontology and Organic Chemistry

Zi Cai

B.Sc. (Nanjing, China),

M.Sc. (Wuhan, China)

Information and Systems Science

*** Mengyu Chen**

B.Sc. (Nanjing, China), M.Sc. (Laurentian)

Information and Systems Science

Galina Doubrovina

M.Sc., Ph.D. (Moscow State)

Information and Systems Science

A Cost Minimization Methodology for Shaping of Self-Similar Traffic

Jianming Hu

M.Eng. (Hefei University of Technology, China)

Information and Systems Science

Fengzhi Huang

B.Sc. (Harbin Institute of Technology)

Information and Systems Science

Dingyi Jin

B.Eng. (East China University of Chemical Technology), M.Sc. (Michigan Technological)
Information and Systems Science
A Resource Monitor for Network-Based Parallel Applications

*** Bruno Lacroix**

B.Sc. (Concordia)
Information and Systems Science
Fractal Image Compression

*** Bingjun Li**

B.Eng. (Hohai, China), M.Eng. (Nanjing Hydraulic Research Institute, China)
Information and Systems Science
Performance Analysis Based on Operational Components in an Object Oriented Framework

Hongbo Li

B.Sc. (Jiaogxi University), M.Sc. (Laurentian)
Information and Systems Science

Hongmei Liu

B.Ed. (Beijing Normal), M.A. (Carleton)
Information and Systems Science

Jiyang Liu

B.Sc., M.Sc. (Peking), Ph.D. (Carleton)
Information and Systems Science

*** Xiaodong Qin**

B.Sc., M.Sc. (Nanjing, China)
Information and Systems Science
Performance Evaluation of a Database Server for Distributed Application Monitoring System

*** Yiping Shi**

B.Sc., M.Eng. (University of Science and Technology, China)
Information and Systems Science

Christiana Rebecca Shorunkeh-Sawyer

B.Sc. (Sierra Leone)
Information and Systems Science

Atif Akram Siddiqi

B.Sc. (University of Engineering and Technology, Pakistan)
Information and Systems Science
Location Management Proposals: Survey and Evaluation

*** Ying Xiao**

B.Sc. (Tianjin Normal, China)
Information and Systems Science

*** Xiangting Yuan**

B.Eng. (Huazhong Agricultural, China), M.Eng. (Southeast, China)
Information and Systems Science

Georgina L. N. González Isunza

B.A. (Universidad Nacional Autonoma, Mexico)
Mathematics

*** Geoffrey Robert Hayes**

B.A. (Carleton)
Mathematics

Gabriela Lartigue

B.Act.Sc., Diploma, (ITAM, Mexico)
Mathematics

Javier Teran Castro

B.Act.Sc. (ITAM, Mexico)
Mathematics

Andrew Williams

B.Sc. (Carleton)
Mathematics

Peter Gordon Wright

B.Comm. (Queen's)
Mathematics
Specialization in Biostatistics

Tanya Anne Hewitt

B.Sc. (Guelph)
Physics
Pinhole Single Photon Emission Computed Tomography

*** Malgorzata Niedbala**

B.Sc. (Waterloo)
Physics
A Comparison of Pulsed Dose Rate to Low Dose Rate Irradiations with/without Mild Hyperthermia Using Three Human Cell Lines

Darlene Rae Walker

B.Sc. (Brandon)
Psychology
Specialization in Neuroscience
Effects of Acute Haloperidol Administration on the Smoking-induced EEG/mood Activation Response Profile

Master of Computer Science

(presented by Professor R.C. Blockley, Dean of the Faculty of Graduate Studies and Research)

Degrees conferred at Spring Convocation are awarded by Senate in February and in June. Degrees awarded in February are denoted by an asterisk (*).

*** Luis Gabriel Rueda**

B.C.S. (National University of San Juan, Argentina)

*** Jie Zhang**

B.S. (Fudan, China)
I/O Impact on Load Sharing Policies in Distributed Systems

Wadih J. Shaib

B.Sc. (Beirut University College)

Bachelor of Science (with Honours)

presented by Professor P.J.S. Watson, Dean of the Faculty of Science, assisted by representatives of Departments)

Degrees conferred at Spring Convocation are awarded by Senate in February and in June. Degrees awarded in February are denoted by an asterisk (*).

BIOCHEMISTRY

Philip Danks

Highest Honours in Biochemistry

Jon-Paul S. Powers

High Honours in Biochemistry

BIOLOGY

Adam Neil Baker

Honours in Biology

Neil Conrad Charbonneau

Honours in Biology

Jason A. Charlebois
Honours in Biology

* **Johann Christopher Daigeler**
Honours in Biology

Alana Christine Dickie
Honours in Biology

Eleanor Melissa Forbes
Honours in Biology

Erik Klingbeil
Highest Honours in Biology

Heather Alison M^cCracken
High Honours in Biology

Tara Potter
Honours in Biology

Andrea Leah Margaret Rowan
Honours in Biology

C. Alexander Valencia
High Honours in Biology

Christopher Paul Yourth
High Honours in Biology

CHEMISTRY

Maria De Rosa
Highest Honours in Chemistry

Alexander M. Doiron
Honours in Chemistry

Peter John Mosher
Highest Honours in Chemistry

Christy Lauren Nichol
Honours in Chemistry

Derek A. Pratt
Highest Honours in Chemistry

Jennifer Reid
Highest Honours in Chemistry

Shadi Vafaeyan
Honours in Chemistry

ENVIRONMENTAL SCIENCE

* **Roxanne Stephanie Idema**
Honours in Environmental Science
Samantha N. Macko
Honours in Environmental Science

Leona Overduin
High Honours in Environmental Science

David Overy
High Honours in Environmental Science

Dale N. Racine
Honours in Environmental Science

ENVIRONMENTAL SCIENCE AND MINOR IN GEOGRAPHIC INFORMATION PROCESSING

Heather Dawn Marie Hirtle
High Honours in Environmental Science
Minor in Geographic Information Processing

Micheline Adele Jordan
Honours in Environmental Science
Minor in Geographic Information Processing

Michael Shawn Patterson
High Honours in Environmental Science
Minor in Geographic Information Processing

Christine Anne Schluter
Honours in Environmental Science
Minor in Geographic Information Processing

GEOGRAPHY

Christopher Donald Burpee
Highest Honours in Geography
Concentration in Physical Geography

Michelle M. Côté
Highest Honours in Geography
Concentration in Physical Geography

Mark Robson
Honours in Geography
Concentration in Physical Geography

GEOLOGY

Todd Bosomworth
Honours in Geology

* **Patricia Ellen Brennan-Alpert**
*B.A. (Alfred), M.A. (Sir George Williams),
B.Ed. (St. Francis Xavier)*
Highest Honours in Geology

Christopher Patrick Hartle
Honours in Geology

Nancy Leanne M^cDonald
Highest Honours in Geology

Muy Ngo
Honours in Geology

* **Clare Rosemary O'Dowd**
Honours in Geology

Stacey Pauline Paquette
Honours in Geology

Jessica Spratt
Honours in Geology

Matthew Christian Stewart
Honours in Geology

Christopher Studnicki-Gizbert
B.A. (McGill)
Highest Honours in Geology

INTEGRATED SCIENCE STUDIES

* **Kimberly Ann Simmons**
Honours in Integrated Science Studies
Integrated Science Studies and Minor
In Business

Kevin Andrew Timms
Highest Honours in Integrated
Science Studies
Minor in Business

COMPUTER MATHEMATICS

Melanie Frances Bryce
Highest Honours in Computer
Mathematics

John Copland Healy
Highest Honours in Computer
Mathematics

Malgorzata Eliza Mystkowska
Honours in Computer Mathematics

**COMPUTER MATHEMATICS:
INFORMATION TECHNOLOGY**

Temesghen Ghidei
B.A. (Carleton)
Honours in Computer Mathematics:
Information Technology

MATHEMATICS

Joseph Ghobril
Honours in Mathematics

Allison Hayhoe
Honours in Mathematics

Vicki Paraskevi Maria Mavraganis
Highest Honours in Mathematics

Lidia Romeo
High Honours in Mathematics

STATISTICS

Malgorzata Winiszewska
Highest Honours in Statistics

PHYSICS

Kevin Charles
Highest Honours in Physics

Paul R. T. Simmons
Honours in Physics

PSYCHOLOGY

Nancy Margaret Farrell
High Honours in Psychology

Julie Evelyn Hewitt
Honours in Psychology

Shelley Johnston
High Honours in Psychology

Anasuya Kothandaraman
Highest Honours in Psychology

Angela Denise Mattka
High Honours in Psychology

Kajantha Suthan
High Honours in Psychology

**PSYCHOLOGY AND MINOR IN
COMPUTER SCIENCE**

Vimi Chawla
High Honours in Psychology
Minor in Computer Science

Tariq Khan
High Honours in Psychology
Minor in Computer Science

**BIOCHEMISTRY AND
BIOTECHNOLOGY**

Heather Lynette Cox
Highest Honours in Biochemistry
and Biotechnology

Sandra Lynne Hurley
Highest Honours in Biochemistry
and Biotechnology

Keely Ingrey
Honours in Biochemistry
and Biotechnology

Brian Danny Julien
Highest Honours in Biochemistry
and Biotechnology

J. Scott MacSween
Honours in Biochemistry
and Biotechnology

Neil T. McKenna
Highest Honours in Biochemistry
and Biotechnology

Nimani Sandhu
Highest Honours in Biochemistry
and Biotechnology

Estatira Sepehr
Honours in Biochemistry
and Biotechnology

Mona Shafey
Highest Honours in Biochemistry
and Biotechnology

Una M. S. So
Honours in Biochemistry
and Biotechnology

Andrew Brian Stewart
High Honours in Biochemistry and
Biotechnology

**BIOLOGY AND PHYSICAL
GEOGRAPHY**

Patricia Lynne Swan
Highest Honours in Biology and
Physical Geography

**BIOLOGY AND
BIOTECHNOLOGY**

Donald Peter Belisle
Honours in Biology and
Biotechnology

Tansy Evelyn
Honours in Biology and
Biotechnology

Leila Haidari
Honours in Biology and
Biotechnology

Daniel Patrick McPhee
Honours in Biology and
Biotechnology

BIOLOGY AND PSYCHOLOGY

Jennifer Anne Greatrix
Honours in Biology and Psychology

Krista Leigh Hyde
Honours in Biology and Psychology

Julie C. Richard
Highest Honours in Biology and
Psychology

Bonnie Jeanne Tourond
High Honours in Biology and
Psychology

NEUROSCIENCE

Sandy Beyko
Honours in Neuroscience

Anthony Andrew Volk
B.Sc. (Carleton)
Highest Honours in Neuroscience

COMPUTER SCIENCE AND MATHEMATICS

Khoi Tan Doan

Honours in Computer Science
and Mathematics
Specialization in Computing Theory
and Numerical Methods

*** Hoang Ly Nguyen**

Highest Honours in Computer Science
and Mathematics
Specialization in Computing Theory
and Numerical Methods

Mieu Phan

Honours in Computer Science
and Mathematics
Specialization in Computing Theory
and Numerical Methods

Patrick Burke

B.Sc. (Carleton)

High Honours in Computer Science
and Mathematics
Specialization in Statistics and
Computing

Bachelor of Science

*(presented by Professor P.J.S. Watson,
Dean of the Faculty of Science)*

Degrees conferred at Spring Convocation
are awarded by Senate in February and in
June. Degrees awarded in February are
denoted by an asterisk (*).

BIOCHEMISTRY

Thet Crapper

Biochemistry

Rebecca Anne Llewellyn

Biochemistry

Valarie Mangoff

Biochemistry

Robert Brian Panchuk

Biochemistry

Adam Paquin

Biochemistry

BIOLOGY

Jennifer Brancato

Biology

Michael C. Fisk

Biology

Reem Gabr

Biology

Sarah Goostrey

Biology

*** Andrew P. Hayes**

Biology

*** Hope Elizabeth Lawley Senechal**

Biology

*** Ho Wai Lee**

B.A. (Carleton)

Biology

Darragh John McFeely

Biology

Stephanie Elizabeth Parisien

Biology

Hubert Tom Piatkowski

Biology

Crystal Gail Prowse

Biology

Bruce Stuart Randall

Biology

Mark Sidney Rossolatos

Biology

Julie Slow

Biology

*** Christopher Lawrence Stewart**

Biology

*** Sashikumar Tharmarajah**

Biology

*** Kyra Karisse Tinker**

Biology

Kathleen Vollrath

B.A. (Carleton)

Biology

Charles Welsh

Biology

CHEMISTRY

Crystal Laura Anne Crosbie

Chemistry

*** Gora Prasad Das**

Chemistry

*** Mark Stephen Foto**

Chemistry

Nanthini Makesan

Chemistry

Isa Mohammed

B.Sc. (Carleton)

Chemistry

*** Sujitha Rasalingam**

Chemistry

Lynn Marie Snelgrove

Chemistry

Kirubaharan Tharmalingam

Chemistry

GEOLOGY

Grant Roger Fowler

Geology

Karen Marie Gaze

Geology

Christopher Roy Thorne

Geology

INTEGRATED SCIENCE STUDIES

Stephen Joseph Bafia

B.Eng. (Carleton)

Integrated Science Studies

Lynn E. Hoyte

Integrated Science Studies

Carol Marszalek
Integrated Science Studies

Naira Minto
Integrated Science Studies

*** Jason Robert Roy**
Integrated Science Studies

COMPUTER MATHEMATICS

*** Khang Banh**
Computer Mathematics

Wing Fai Chung
Computer Mathematics

Van Tuong Do
Computer Mathematics

*** Gita Gupta**
B.Sc. (Carleton)
Computer Mathematics

Suk Yan Ip
Computer Mathematics

Naser Kaïd
Computer Mathematics

*** Suganthini Kugathan**
Computer Mathematics

*** Christine Wai Shan Leung**
Computer Mathematics

Stephanie Yan Fen Moy
Computer Mathematics

*** Kim Cuong The Nguyen**
Computer Mathematics

Barbara Opara
Computer Mathematics

Diana Andreea Popescu
Computer Mathematics

Derek Steven Rumig
Computer Mathematics

Kaveh Sohrabi
Computer Mathematics

Macmohana Singh Viridy
Computer Mathematics

Yordanos Yemane
B.A. (Carleton)
Computer Mathematics

Shawn Robert Young
Computer Mathematics

Roula Zourob
Computer Mathematics

MATHEMATICS

Siva Mathiyaparanam
Mathematics

*** Michael R. Nauth**
Mathematics

Scott W. E. Nichol
Mathematics

*** Ngoc Thach-Thao Phan**
Mathematics

Sandra Natalie Ramkerrysingh
Mathematics

*** Vinoba Rasalingam**
Mathematics

PHYSICS

Maria Andrusiak
Physics

Jason Mark Figueredo
Physics

STATISTICS

Chuan-Hua Pan
Statistics

Bachelor of Computer Science (with Honours)

*(presented by Professor Frantisek Fiala,
Acting Director of the School of Computer
Science)*

Degrees conferred at Spring Convocation
are awarded by Senate in February and in
June. Degrees awarded in February are
denoted by an asterisk (*).

Maher Sobhi Adi
with Honours
Minor in Mathematics

Fathi Aidarus
with Honours
Minor in Mathematics

*** Man Shan Prudence Au**
with Honours
Co-operative Education

*** Adam Brooking**
with Honours

Tammy Lynn Broten
B.A. (Queen's)
Highest Honours
Co-operative Education

*** Adam Michael Brousseau**
with Honours

Michael Gordon Brown
with Honours

Adam Castrucci
Highest Honours
Co-operative Education

Ning Chang
High Honours
Co-operative Education

*** Ilona Chodnicka**
Highest Honours

Warren Royce Cole
B.A. (Western), B.Com. (Carleton)
High Honours
Co-operative Education

Nikhil John D'Mello
Highest Honours
Co-operative Education

* **Roger Dao**
with Honours

Douglas Darrell Dickinson
Highest Honours
Co-operative Education

Blaise Doughan
High Honours
Co-operative Education
Minor in Mathematics

Keven Jules Eyre
B. I. (Manitoba)
Highest Honours

Gabor Farkas
High Honours

Rolf Fischer
Highest Honours
Co-operative Education

Alexander Gordon Fitzpatrick
with Honours
Co-operative Education

* **John Fong**
with Honours

Christian Friis
with Honours

Grant Gayed
Highest Honours
Co-operative Education

Konstanten Georgopoulos
Highest Honours
Co-operative Education
Minor in Business

Andre Maurice Godin
with Honours

Kenneth Joseph Lee Graham
Highest Honours
Co-operative Education
Minor in Mathematics

Jun Gu
Highest Honours

Philip J. Hachey
High Honours
Co-operative Education

Babak Hafezi
High Honours

Jason Roger Haley
Highest Honours
Co-operative Education

Jeyanthi Hall
Highest Honours

Gordon Bruce Hastie
High Honours

Xianghong He
B.A. (Anqing, China)
High Honours
Co-operative Education

Colin Marc Hencin
Highest Honours
Co-operative Education

David M. Hill
Highest Honours
Co-operative Education

Deborah Lynne Hutchinson
Highest Honours
Co-operative Education

* **Khanh Ho**
with Honours

Carl Norris Hume
High Honours
Co-operative Education

Nitin Joshi
with Honours

Kenny S. Kim
Highest Honours
Co-operative Education

Chi Hung Le
with Honours

Phuong-Thao Le-Thi
High Honours
Co-operative Education

Daniel Mathew MacKinnon
B.Sc., M.Sc. (Dalhousie)
Highest Honours

Hai-Bang Pham
with Honours
Minor in Mathematics

Vinnie Pham
with Honours

Derrick Pryce
with Honours
Minor in Mathematics

Ravi Ramsaran
with Honours

Ian Reid
with Honours

Rafal Rybak
High Honours
Co-operative Education

Christopher Freeman Saldanha
High Honours

* **Tim Sandwell**
with Honours

Jennifer Ellen Thompson
High Honours

Bart Trojanowski
Highest Honours
Co-operative Education

Margaret Barbara Unger
Highest Honours
Co-operative Education

Deryck Anthony Velasquez
Highest Honours
Co-operative Education

Jiang Wang
B.Comm. (Calgary)
High Honours

Dwayne L. Williams
Highest Honours

* **David John Wilson**
with Honours
Co-operative Education

Chunlei Zhang
Highest Honours

*** Ling Zhang**
B.A. (Hangzhou)
Highest Honours
Co-operative Education

*The following awards
were made by Senate
after publication of the
1998 Fall
Convocation program.*



Bachelor of Arts with Honours

Lucie Kocum

Highest Honours in Music and
Psychology

Pauli Thurner

Honours in Environmental Studies

Bachelor of Social Work with Honours

Melanie Dawn Smith

Bachelor of Arts

Carolyn Rose Almeida

Sociology and Anthropology

Jodi-Lynn Amy Armitage

Psychology

Michelle Canning

English

Andrea Lynn Cook

English

Melissa Ann Franke

Art History and Architecture

Catherine Anne Hemsworth

English

Dana Kathleen McQuaid

Psychology

Matthew James Overton

History

Robert Vicente Pinilla

English and Psychology

Marcia Spence

English

Kirsten Grace Taylor

Economics

Medallists in the Graduating Class



The Governor General's Medal – Bachelor's Level

Awarded annually to the student standing at the head of the graduating class at the bachelor's level.

Donor: His Excellency the Governor General of Canada

Maria De Rosa

Honours Chemistry

The Chancellor's Medal

Awarded annually in the name of the Chancellor of the University to a graduating student of outstanding academic achievement.

Jason Roger Haley

Bachelor of Computer Science

Software (Co-op)

The President's Medal

Awarded annually in the name of the President of the University to the student with the highest standing in a pass program of studies.

Michael Joseph Kameka

Bachelor of Arts

Psychology

University Medal for Outstanding Graduate Work – Ph.D. Level

Awarded, when merited, for outstanding graduate work at the doctoral level.

James Andrew Cherry

Electrical Engineering

University Medal for Outstanding Graduate Work – Master's Level

Awarded, when merited, for outstanding graduate work at the master's level.

Cynthia Anne Waldie

History

University Medals (Undergraduate)

Awarded annually, when merited, to the graduating students standing highest in interfaculty studies, arts and international business, science, engineering, architecture, commerce, computer science, industrial design, journalism, music, public administration, and social work.

University Medal in Interfaculty Studies

Julie C. Richard

Honours Bachelor of Science

Biology and Psychology

University Medal in Arts

Laurie Thomas

Honours Anthropology and English

University Medal in Arts

Elizabeth Lynn Hay

Honours Psychology

University Medal in Science

Mona Shafey

Honours Biochemistry and Biotechnology

University Medal in Computer Science

Nikhil John D'Mello

Hardware (Co-op)

University Medal in Commerce

Kevin O'Connor

University Medal In International Business
Sabrina Zollo

University Medal In Journalism
Jennifer Norma Ross

University Medal in Engineering
Sundus Kubba
Electrical Engineering

University Medal in Architecture
Ozayr S. Saloojee

Senate Medals

Awarded, when merited, to graduating students of outstanding academic achievement.

Doctoral Level
Fang Wang
Electrical Engineering

Jennifer Monique Arnold
Psychology

Michael James Byron
Earth Sciences

Master's Level
Gillian Anne Wight
English

Lisa Feeney
Management Studies

Undergraduate Level
Ilyea Erlikhman
Computer Systems Engineering

Sandra Lynne Hurley
Biochemistry and Biotechnology

Hoang Ly Nguyen
Bachelor of Science Honours
Computer Science and Mathematics

Ronald Stewart Fernando
Electrical Engineering

Nimani Sandhu
Biochemistry and Biotechnology

Christina Anita O'Regan
Electrical Engineering

Shelley Alice Connelly
Bachelor of Arts
Psychology

Kathryn Marie Furlong
Environmental Engineering

Constance Maureen Hawkins
Environmental Studies

Kevin Jonathan Schenk
Honours Geography and Mass Communication

Derek A. Pratt
Honours Chemistry

Konstanten Georgopoulos
Computer Science
Software (Co-op)

John Boyer
Computer Systems Engineering

Leila Gharani
Honours Economics

Erin Kathleen Despard
Honours Interdisciplinary Studies

Hermina J.M. Rush
Honours Greek and Latin

Natalie Anne Schoenfeld
Honours Psychology

Anna Lisa Pollock
Honours Latin and Linguistics

Deborah Hitchinson
Computer Science
Software (Co-op)

Margaret Barbara Unger
Computer Science
Software (Co-op)

Judith Lynn Sparks
Honours Anthropology

Todd Regan Statham
Honours History

Neil T. McKenna
Honours Biochemistry
and Biotechnology

Taissa Duarte Seixas
Honours Economics

Cynthia Rurak
Honours English

Karin Haelssig
Honours German
and Linguistics

Nicola Jane Jarvis
Sociology/Anthropology

Sarah Marceau
Honours Sociology

Orest Dykyj
Journalism

Daniel Kitts
Journalism

Stephen Joseph Bafia
Integrated Science Studies

Heather Lynette Cox
*Honours Biochemistry
and Biotechnology*

Janice A. Isaac
Honours English

Melanie McNaught
Journalism

Malgorzata Winiszewska
*Bachelor of Science Honours
Statistics*

Jennifer Reid
Chemistry

Ellen Ropchan
Commerce

Geoffrey Waddington
Computer Systems Engineering

Michelle Denise Flores
Honours Linguistics and Psychology

Linda Ellen Schoots
Honours Canadian Studies and English

Melanie Frances Bryce
Honours Computer Mathematics

Brian Danny Julien
Honours Biochemistry and Biotechnology

Nancy Leanne MacDonald
Honours Geology

David M. Hill
*Computer Science
Software (Co-op)*

